


Federated Search: Results Clustering

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Resource Discovery

Why Federated Search?

- The Web has changed how we deliver and consume information
 - The paradigm shift from physical to digital and electronic information has created new requirements and opportunities for delivering effective library experiences
- The Web has transformed the nature of library collections
 - The majority of new acquisitions are Web-based
 - Collections have increased dramatically and content is available anytime, anywhere
 - Web search engines compete with libraries


The Nature of Collections Has Changed!

- 
- How do you define a library's collection?
 - Physical location?
 - Monetary rights?
 - Access?

Global Connections, Global Collections!



Typical Library Subject Gateway



[Libraries Home](#) [Resources](#) [Services](#) [About](#)

[ask us](#)
email | chat | phone

[Libraries Home](#) > [Resources Organized by Subject](#)
UW Libraries Resources by Subject
[Off-Campus Access](#)

Need Help? [Chat with a librarian online](#) or [contact your subject librarian](#)

These pages provide access to resources - article databases, catalogs, reference books, web sites - organized by topic. These pages were created by the librarians responsible for the areas of study listed below.

<ul style="list-style-type: none">• Aeronautics & Astronautics• African Studies• American Ethnic Studies• American Indian Studies• Anthropology• Archaeology• Architecture & Urban Planning• Art• Astronomy• Atmospheric Sciences• Bioengineering• Biology• Botany• Business• Canadian Studies• Chemical Engineering• Chemistry• Children's Literature• Chinese Studies• Cinema Studies• Civil & Environmental Engineering• Classics• Communication• Comparative Literature• Computer Science• Dance• Dentistry• Drama	<ul style="list-style-type: none">• East Asia (general)• Earth & Space Sciences (Geology & Geophysics)• Economics• Education• Electrical Engineering• Engineering (general)• English• Environmental Sciences• Fisheries• Forest Resources• French• Gay & Lesbian Studies• Geography• Germanics• Government Publications• Grants• Health Sciences• Hellenic Studies• History• History of Science• Human Rights• Industrial Engineering• Information Science• International Studies• Italian• Japanese Studies• Jewish Studies• Korean Studies• Latin American Studies• Law• Linguistics	<ul style="list-style-type: none">• Marine Studies• Materials Science• Mathematics & Applied Mathematics• Mechanical Engineering• Medicine• Museology• Music• Near East Studies• News• Nursing• Oceanography• Pharmacy• Philosophy• Physics• Political Science & Public Affairs• Psychology• Public Health• Religion• Russian & East European Studies• Scandinavian Studies• Social Work• Sociology• South Asian Studies• Southeast Asian Studies• Spanish & Portuguese• Speech & Hearing• Statistics• Technical Communication• Western European Studies• Women Studies• Zoology
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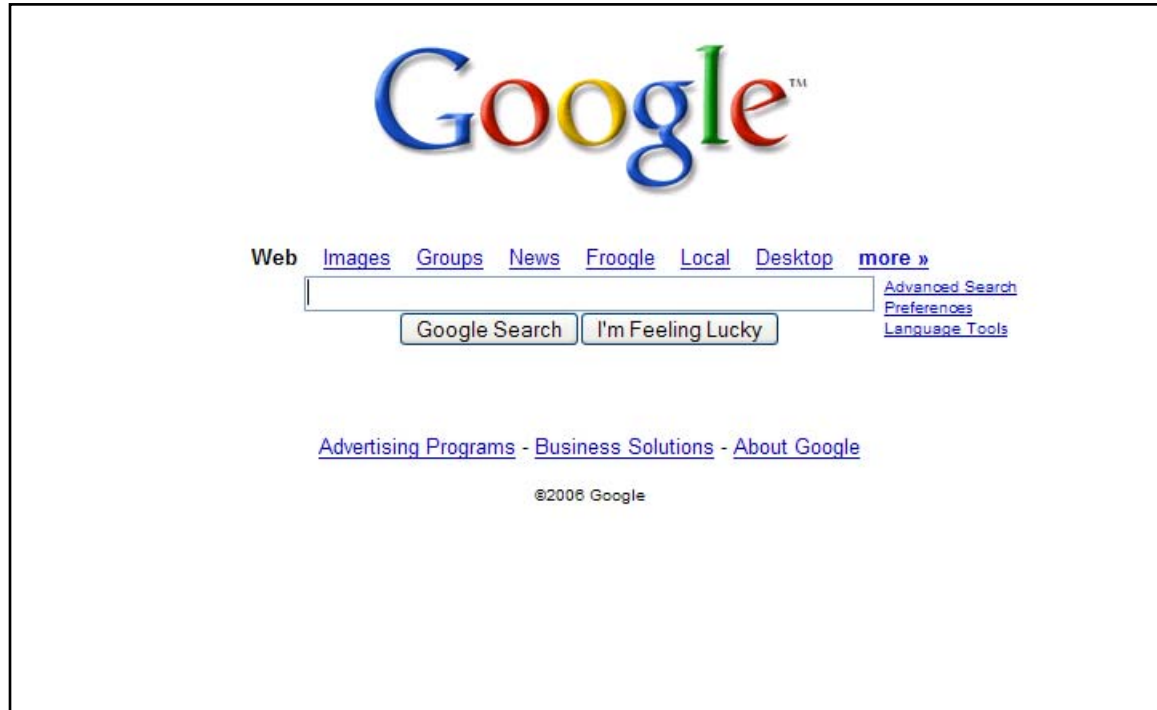
Search Today = UI Overload

The image is a collage of various academic and research search engine interfaces, illustrating the complexity and UI overload of modern search systems. The interfaces shown include:

- ACCESS Science**: Displays search options, filters, and results for scientific literature.
- ERIC**: Full Text Provided by ERIC, showing search results for educational resources.
- EBSCO**: EBSCO eBooks, showing search results for electronic books.
- Humanities Online**: Search results for humanities-related literature.
- PubMed**: Search results for biomedical literature.
- LIFINDER**: Search results for various types of digital content.
- SCOPUS**: Search results for peer-reviewed literature.
- Wilson**: Search results for various types of digital content.
- eLibrary**: Search results for electronic books and journals.
- Oxford English Dictionary**: Search results for the Oxford English Dictionary.
- LexisNexis**: Search results for legal research.
- ReferenceUSA**: Search results for business and company information.
- Science Online**: Search results for scientific literature.
- Grove Art Online**: Search results for art-related literature.
- ProQuest**: Search results for various types of digital content.
- C-Researcher**: Search results for various types of digital content.
- Business & Company Resource Center**: Search results for business and company information.
- JSTOR**: Search results for peer-reviewed literature.

Each interface displays different search options, filters, and results, highlighting the overwhelming amount of information and choices available to users. The collage is set against a background of a person sitting at a desk with a computer, looking at the screen, which is displaying a search engine interface.

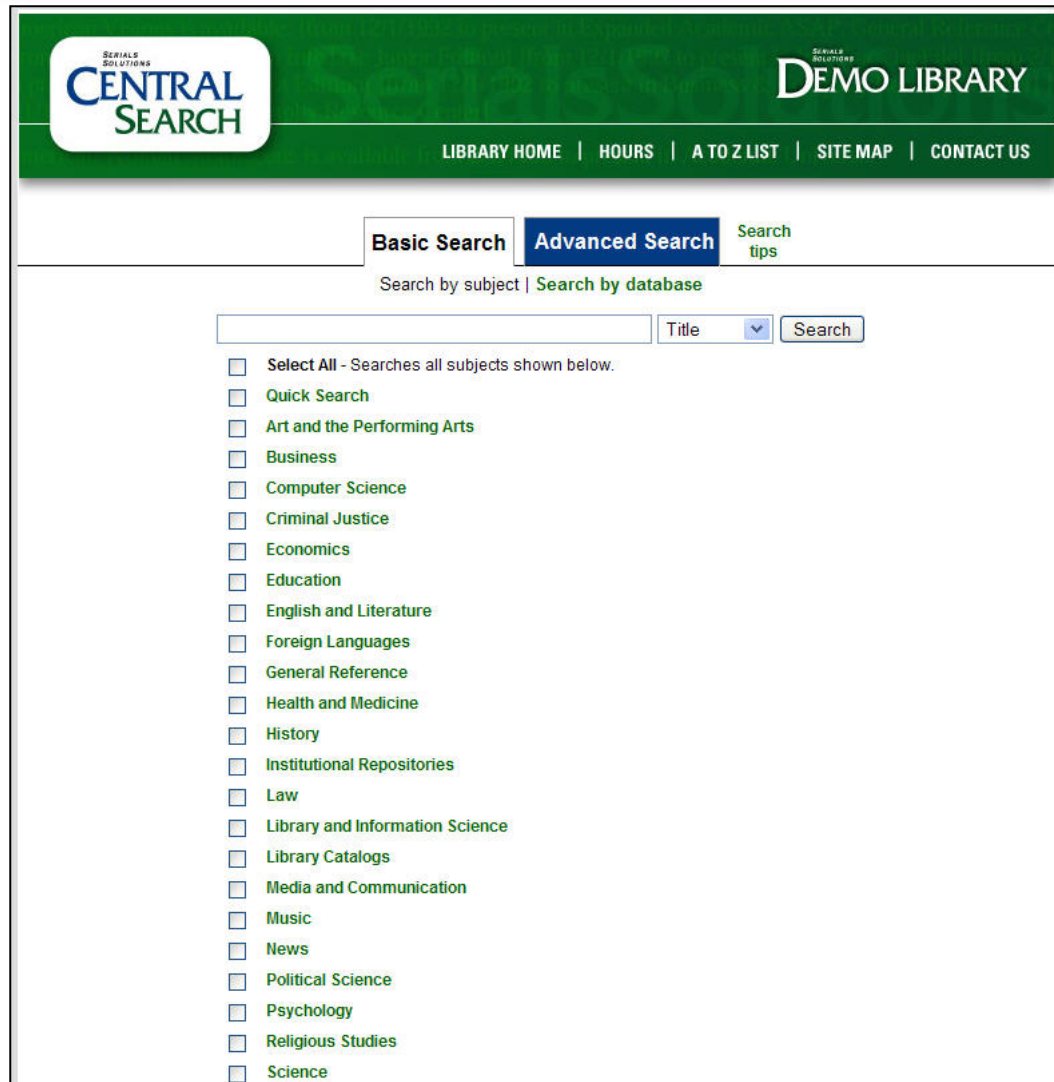
Why Google?



Why Google?

- **“Why will our students not get up and walk a hundred meters to access a key journal article in the library? The natural human tendency in information seeking is to fall back on passive and sampling and selecting behaviors derived from millions of years of [evolution] It is not surprising, then, that the methods of access designed by librarians by librarians are little used.”**
 - Marcia Bates
- “Towards an integrated Model of Information Seeking and Searching” by Marcia J. Bates. Keynote for The Forth International Conference on Information Needs, Seeking and Use in Different Contexts, Lisbon, Portugal, September 11-13, 2002

Federated Search = Simple Starting Point



The screenshot displays the 'Central Search' interface, a web-based search tool. At the top, a green header bar contains the 'SERIALS SOLUTIONS CENTRAL SEARCH' logo on the left and the 'SERIALS SOLUTIONS DEMO LIBRARY' text on the right. Below the logo, a navigation menu lists 'LIBRARY HOME', 'HOURS', 'A TO Z LIST', 'SITE MAP', and 'CONTACT US'. The main content area features three tabs: 'Basic Search', 'Advanced Search' (which is highlighted in blue), and 'Search tips'. Below these tabs, there are two links: 'Search by subject' and 'Search by database'. A search input field is present, followed by a dropdown menu set to 'Title' and a 'Search' button. A list of subject categories is displayed, each preceded by an unchecked checkbox. The subjects include: Select All - Searches all subjects shown below., Quick Search, Art and the Performing Arts, Business, Computer Science, Criminal Justice, Economics, Education, English and Literature, Foreign Languages, General Reference, Health and Medicine, History, Institutional Repositories, Law, Library and Information Science, Library Catalogs, Media and Communication, Music, News, Political Science, Psychology, Religious Studies, and Science.

SERIALS SOLUTIONS CENTRAL SEARCH

SERIALS SOLUTIONS DEMO LIBRARY

[LIBRARY HOME](#) | [HOURS](#) | [A TO Z LIST](#) | [SITE MAP](#) | [CONTACT US](#)

Basic Search | **Advanced Search** | [Search tips](#)

[Search by subject](#) | [Search by database](#)

Title Search

- ☐ **Select All** - Searches all subjects shown below.
- ☐ Quick Search
- ☐ Art and the Performing Arts
- ☐ Business
- ☐ Computer Science
- ☐ Criminal Justice
- ☐ Economics
- ☐ Education
- ☐ English and Literature
- ☐ Foreign Languages
- ☐ General Reference
- ☐ Health and Medicine
- ☐ History
- ☐ Institutional Repositories
- ☐ Law
- ☐ Library and Information Science
- ☐ Library Catalogs
- ☐ Media and Communication
- ☐ Music
- ☐ News
- ☐ Political Science
- ☐ Psychology
- ☐ Religious Studies
- ☐ Science

From UI Overload To Citation Overload

SERIALS SOLUTIONS

CENTRAL
SEARCH

SERIALS SOLUTIONS

DEMO LIBRARY

[LIBRARY HOME](#) | [HOURS](#) | [A TO Z LIST](#) | [SITE MAP](#) | [CONTACT US](#)

Search

Search Completed

[Refine Search](#)

[New Search](#)

Sort Results by:

[Date](#)

[Title](#)

[Author](#)

[Source](#)

Filter by:

☐ Full Text

☐ Peer-reviewed

Results 1 - 25 of 24671 for "title contains bill and gates"

[Export Records](#)

[Hide summary](#)

▶ ABC-CLIO (4)

▶ Austin Peay State University
Woodward Library (13)

▶ CBB Catalogs (3)

▶ Chadwyck-Healey (93)

▶ EBSCOhost (2476)

▶ H.W. Wilson (47)

▶ IEEE

▶ James A. Cannavino Library
Catalog (3)


▶ Palomar Library Catalog

▶ ProQuest (22032)

▶ Thomson Gale

1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 >

1. 'China's Bill Gates' who revolutionised character printing dies
Irene Wang.
South China Morning Post; Hong Kong
Feb 14, 2006. p.6
Source: Ethnic NewsWatch
[Show/Hide Abstract](#)
3 Duplicate Records

2. BILL GATES OFFERS \$900 MILLION TO FIGHT TUBERCULOSIS.
Jet (0021-5996)
2/13/2006. Vol.109, Iss.6;
Source: MAS Ultra - School Edition
[Show/Hide Abstract](#)
3 Duplicate Records 

3. What's the value of Bill Gates's home? Get an estimate on the Web MARKETPLACE by Bloomberg; [3 Edition]
Hui-yong Yu.
International Herald Tribune; Paris (0294-8052)
Feb 13, 2006. p.15
Source: Ethnic NewsWatch
[Show/Hide Abstract](#)
3 Duplicate Records


4. Bill Gates
Times, The (United Kingdom)
2/9/2006.
Source: Newspaper Source

5. Bill Gates; [Final 3 Edition]
The Times; London (UK) (0140-0460)
Feb 9, 2006. p.2
Source: Ethnic NewsWatch
[Show/Hide Abstract](#)
3 Duplicate Records


UI Overload to Citation Overload

Average Search Result Set

- 1000+ Citations spanning 40 pages (25 per page)
- From a wide variety of resources – with a wide variety of metadata structures (read taxonomies)
- Problem now is not a lack of information – but rather too much information

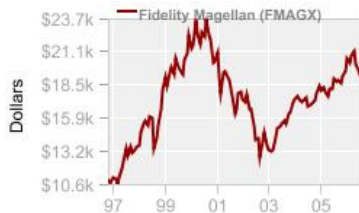
- 
- “The main purpose of indexing and abstracting is to construct *representations* of published items in a form suitable for inclusion in some type of database”
 - The goal of a retrieval environment is to maximize recall (useful items) and precision (non-useful items)

Lancaster – Database Evaluation Criteria

- 
- Coverage
 - Retrievability – How much of the literature on the topic, included in the database, can be found using “reasonable” search strategies?
 - Predictability – Using information in the database, how well can a user judge which items are useful or not?
 - Timeliness

'Magellan': What does the searcher want?

- The Explorer? (History)
- The Mutual Fund? (Business)
- The Venus Probe? (Science)
- The Strait of Magellan? (Geography)
- The Global Positioning System? (Technology)
- The Health Services Company? (Medicine)



How do we deal with this “Avalanche”?

- Personal Reference Librarians (Reference Interview)
- Sorting / Filtering Tools
- Relevance Ranking
- Visualization
- Clustering



Sorting / Filtering Tools - Examples

Sort Results by: [Date](#) | [Title](#) | [Author](#) | [Source](#)

Results 1 - 25 of 64659 for "title contains magellan" (Hide summary)

ABC-CLIO (5)	Elsevier (1)	New York Public Library (300)
ARTstor (20)	Factiva (12511)	Northwestern University (2)
Austin Peay State University Woodward Library (9)	Google.com	Oxford University Press
Blackwell Synergy (133)	H.W. Wilson (209)	Palomar College (5)
CBB Catalogs (17)	HELIN Consortium (111)	ProQuest (35357)
Chadwyck-Healey (86)	IEEE (21)	Springer-Verlag
Congressional Quarterly Inc.	James A. Cannavino Library Catalog (3)	Taylor & Francis
CRCnetBASE	Jewish National and University Library	Thomson Gale (12548)
CSA (5)	JSTOR (63)	U.S. Department of Energy
Ebrary	Minneapolis Public Library (77)	University of Texas at San Antonio IMR
EBSCOhost (3175)	National Library of Medicine	Wiley Interscience (1)

1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 >

SEARCHING [Find related terms](#) Search Results for "magellan"

Keyword Publication date: ☒ All dates ☐ Year range
 And Keyword From: 1966 To:
 And Keyword 2006

☐ Full-text only ☐ Peer-Reviewed Resources

Results	Database	Description
95	Britannica Online	Articles, illustrations, definitions & weblinks
5	Biography Resource Center	Biographical profiles
431	Health and Wellness Resource Center	Medical, health, & wellness information
44	Columbia Grangers World of Poetry	Full-text poems and poem citations
24	Business and Company Resource Center	Company & industry information, business articles
442	New York Times Historical Backfile	News articles - New York Times from 1851
267	Washington State Newsstand	Newspaper articles - Washington state
4656	ProQuest	Magazine & newspaper articles

OPTIONS: SORT

Britannica Online

Results 1 to 20 of 95

☐ Select or de-select all

1. ☐ **Magellan, Ferdinand**
 Description: Portuguese navigator and explorer who sailed under the flags of both Portugal (1505–12) and Spain (1519–21). From Spain he sailed around South America, discovering the Strait of Magellan, and across ...

2. ☐ **Magellan, Strait of**
 Description: channel linking the Atlantic and Pacific oceans, between the mainland tip of South America and Tierra del Fuego island. Lying entirely within Chilean territorial waters, except for its easternmost ...

3 Requirements for Relevance Ranking

1. Ability to perform textual analysis on documents (i.e. text mining) to look for relationships between documents
2. Analysis of user preferences (i.e. which resources they select)
3. Authority rules (what are the preferred / most appropriate resources)

This is *extremely* difficult in Federated Search!

Current Relevance Rules in Fed Search

- Simple term count / scoring system (Example rules)
 - Term in title – 3 points
 - Term in abstract – 2 points
 - Frequency of term in citation – 1 point for each
 - Rank in the Native Database – variable multiple
 - Recency of Article – variable multiple
- Ultimately, this is a simple mathematical analysis
- It does not consider the most important factor –
CONTEXT of the information need

WebFeat – Relevance Ranking

Results Database	Description
5 Biography Resource Center	Biographical profiles
431 Health and Wellness Resource Center	Medical, health, & wellness information
44 Columbia Grangers World of Poetry	Full-text poems and poem citations
24 Business and Company Resource Center	Company & industry information, business articles
95 Britannica Online	Articles, illustrations, definitions & weblinks

OPTIONS: SORT Relevancy-ranked

- ☐ **Magellan, Iowa partner on recovery program for Medicaid consumers with SMI: innovative program first of its kind in managed care arena.**
Journal: Mental Health Weekly
Pub.: 2006-08-21
Volume: 16
Issue: 33
Pages: 1
Database: Health and Wellness Resource Center
- ☐ **Magellan, Ferdinand**
Author: Ferdinand Magellan,
Source: Encyclopedia of World Biography, 2nd ed
Pub.: 1998
Description: "Ferdinand Magellan," in Encyclopedia of World Biography, 2nd ed. 17 Vols. Gale Research, 1998. (An in-depth profile of the individual's life and career.)
Database: Biography Resource Center
- ☐ **Magellan Health Services Enhances Recovery and Improves Effectiveness of Care Through Innovative Iowa Program.**
Journal: Business Wire
Pub.: 2006-08-14
Pages: NA
Database: Health and Wellness Resource Center
- ☐ **Magellan officials pleased with second-quarter earnings: officials cite 'robust' Medicaid market for behavioral services.**
Journal: Mental Health Weekly
Pub.: 2006-08-07
Volume: 16
Issue: 31
Pages: 1
Database: Health and Wellness Resource Center

Visualziation

The screenshot displays the KartOO web application interface. At the top, a search bar contains the text "magellan". The main area features a network map with nodes representing websites and their relationships. Nodes include "www.info.com", "www.thefreedictionary.com", "time", "www2.jpl.nasa.gov", "www.magellan.com", "compare", "www.magellanhealth.com", "managed", "www.eWoss.com", "product", "www.mckinley.com", "links", "www.megasearch.biz", "www.publius-historicus.com", "www.magellans.co.uk", "support", "www.magellangps.com", and "www.ToseekA.com". The left sidebar lists "Saved map" and "Topics" such as "magellan s travel supplies", "magellan mission to venus", "ferdinand magellan", "fernão de magalhães", "support", "product", "managed", "links", "compare", "info", "time", "leader", "Popular Queries", "Last queries", "Celebrities", "Popular Brands", "Computing / Internet", "Job", "Entertainment", "Finance", "Health", "Homelife", and "Shopping / Travel". The right sidebar shows "Sponsor" information for "Magellan" with links to "http://www.ToseekA.com", "http://www.eWoss.com", and "http://www.megasearch.biz". At the bottom right, it indicates "6 Found results" and "1 - 13".

Visualization – From Grokker

The screenshot displays the Grokker ESM (Enterprise Search Map) interface. At the top, the Grokker logo is visible alongside search filters for Yahoo!, Wikipedia, and Amazon Books. A search bar contains the term 'magellan', and the results are shown in 'Map View' with 134 total results. The main visualization is a circular bubble map where each bubble represents a search result. Bubbles are labeled with titles such as 'Magellan Project', 'Born in Portugal', 'Portuguese Expl...', 'World Explorer Ferdinand Magellan', 'Mission to Venus', 'Info about Magellan', 'Magellan GPS', 'Content Management', 'Travel Supplies', and 'More...'. The bubbles are color-coded (green and purple) and sized according to their relevance. On the left sidebar, there are options for a 'Working List' (currently empty), 'Email Map...', 'Export Map...', and search filters by keyword, date, source, and domain. On the right, a list of search results is displayed, including links to Wikipedia and Yahoo! pages about the Magellan probe, telescopes, and GPS. Each result includes a brief description and a source attribution.

Working List
0 items in your list
[View your list](#)

☒ **Yahoo!** ☒ **Wikipedia** ☐ Amazon Books

magellan **GROK** [Advanced Search](#)

Outline View **Map View** 134 total results

[ZOOM BACK](#) [TOP](#) [Expand View](#) [Expand Detail](#)

Search within the map:
by keyword
 ☐ Exclude
by date
all most recent
by source
<All sources>
by domain
<All domains>
[Hide Tools](#)
Layout ☒ Color ☐

Magellan probe
[Add to Working List](#) | [Post to del.icio.us](#) | [Bookmark](#) | [Email](#)
...The Magellan probe, a NASA unmanned space mission to Venus....
http://en.wikipedia.org/wiki/Magellan_probe – Sunday, October 08, 2006
Source: Wikipedia

Ann Arbor, Michigan Commercial and Residential Real Estate, McKinley
[Add to Working List](#) | [Post to del.icio.us](#) | [Bookmark](#) | [Email](#)
Commercial and residential real estate realtors in Michigan, Illinois, Indiana, Ohio, Kentucky, Oklahoma, Virginia, Georgia, Florida, Nevada, Arizona. Leasing, property asset management, industrial, retail, shopping mall centers, investment, ...
<http://www.mckinley.com/> – 21k – Friday, October 06, 2006
Source: Yahoo!

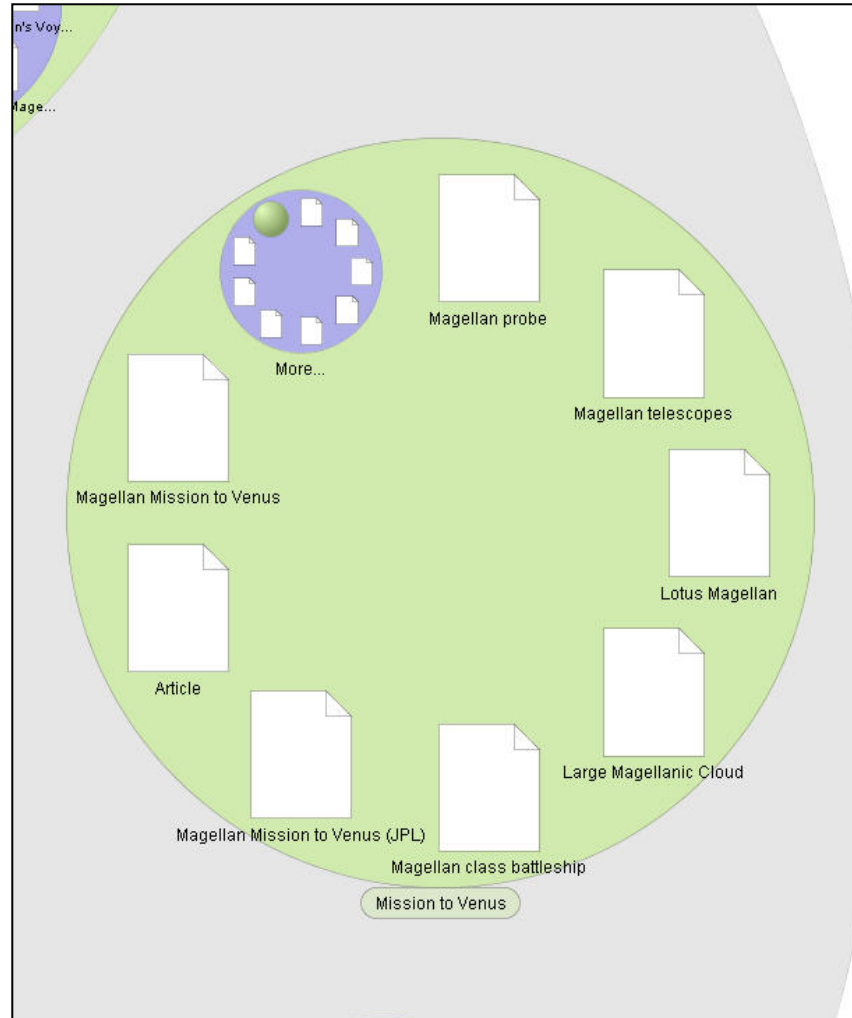
Magellan telescopes
[Add to Working List](#) | [Post to del.icio.us](#) | [Bookmark](#) | [Email](#)
...The Magellan telescopes at Las Campanas, Chile....
http://en.wikipedia.org/wiki/Magellan_telescopes – Sunday, October 08, 2006
Source: Wikipedia

Enterprise Content Management Solutions (ECM) – Open Text Corporation
[Add to Working List](#) | [Post to del.icio.us](#) | [Bookmark](#) | [Email](#)
Open Text (Nasdaq: OTEX) (TSX: OTC) is the market leader in providing Collaboration, Enterprise Content Management software solutions. Livelihood, is an integrated compliant software solution for the global enterprise.
<http://www.magellan.com/> – 28k – Wednesday, October 04, 2006
Source: Yahoo!

Lotus Magellan
[Add to Working List](#) | [Post to del.icio.us](#) | [Bookmark](#) | [Email](#)
...Lotus Magellan, a file manager software....
http://en.wikipedia.org/wiki/Lotus_Magellan – Sunday, October 08, 2006
Source: Wikipedia

Magellan GPS
[Add to Working List](#) | [Post to del.icio.us](#) | [Bookmark](#) | [Email](#)

Visualization – Drilling Down



Visualization – Text Option

The screenshot displays the Grokker ESM web application interface. At the top left is the Grokker ESM logo. Below it, a sidebar contains a 'Working List' (0 items), 'Email Outline...', 'Export Outline...', and search filters for 'by keyword', 'by date', 'by source', and 'by domain'. The main content area shows search results for 'magellan' (134 total results). The results are organized into an 'Outline View' on the left and a 'Map View' on the right. The 'Outline View' lists categories such as 'Ferdinand Magellan (33)', 'Born in Portugal (27)', 'Mission to Venus (24)', 'Magellan GPS (20)', 'Magellan Project (15)', 'Progressive Rock (11)', 'Content Management (10)', 'Info about Magellan (9)', 'Encyclopedia Article (6)', 'NASA's Magellan Spacecraft (6)', 'Space Shuttle (5)', 'Teacher Professional Development (5)', 'Travel Supplies (5)', 'Magellan Health Services (4)', 'Trent Gardner (4)', 'Search Results (3)', and 'Web Search (3)'. The 'Map View' displays a list of search results, including links to 'Magellan probe', 'Ann Arbor, Michigan Commercial and Residential Real Estate, McKinley', 'Magellan telescopes', 'Enterprise Content Management Solutions (ECM) - Open Text Corporation', 'Lotus Magellan', 'Magellan GPS', 'Large Magellanic Cloud', and 'Magellan's Travel Supplies'. Each result includes a title, a brief description, a URL, and the source (e.g., Wikipedia, Yahoo!).

Select one or more sources then grok.
☒ Yahoo! ☒ Wikipedia ☐ Amazon Books

magellan **GROK** Advanced Search

Outline View Map View 134 total results

Expand Outline Collapse Outline

magellan (134 results)

- ☒ Ferdinand Magellan (33)
 - Born in Portugal (27)
 - Mission to Venus (24)
 - Magellan GPS (20)
 - Magellan Project (15)
 - Progressive Rock (11)
 - Content Management (10)
 - Info about Magellan (9)
 - Encyclopedia Article (6)
 - NASA's Magellan Spacecraft (6)
 - Space Shuttle (5)
 - Teacher Professional Development (5)
 - Travel Supplies (5)
 - Magellan Health Services (4)
 - Trent Gardner (4)
 - Search Results (3)
 - Web Search (3)

magellan

[Magellan probe](#)
Add to Working List | Post to del.icio.us | Bookmark | Email
...The Magellan probe, a NASA unmanned space mission to Venus....
http://en.wikipedia.org/wiki/Magellan_probe - Sunday, October 08, 2006
Source: Wikipedia

[Ann Arbor, Michigan Commercial and Residential Real Estate, McKinley](#)
Add to Working List | Post to del.icio.us | Bookmark | Email
Commercial and residential real estate realtors in Michigan, Illinois, Indiana, Ohio, Kentucky, Oklahoma, Virginia, Georgia, Florida, Nevada, Arizona. Leasing, property asset management, industrial, retail, shopping mall centers, investment, ...
<http://www.mckinley.com/> - 21k - Friday, October 06, 2006
Source: Yahoo!

[Magellan telescopes](#)
Add to Working List | Post to del.icio.us | Bookmark | Email
...The Magellan telescopes at Las Campanas, Chile....
http://en.wikipedia.org/wiki/Magellan_telescopes - Sunday, October 08, 2006
Source: Wikipedia

[Enterprise Content Management Solutions \(ECM\) - Open Text Corporation](#)
Add to Working List | Post to del.icio.us | Bookmark | Email
Open Text (Nasdaq: OTEX) (TSX: OTC) is the market leader in providing Collaboration, Enterprise Content Management software solutions. Livelihood, is an integrated compliant software solution for the global enterprise.
<http://www.magellan.com/> - 28k - Wednesday, October 04, 2006
Source: Yahoo!

[Lotus Magellan](#)
Add to Working List | Post to del.icio.us | Bookmark | Email
...Lotus Magellan, a file manager software....
http://en.wikipedia.org/wiki/Lotus_Magellan - Sunday, October 08, 2006
Source: Wikipedia

[Magellan GPS](#)
Add to Working List | Post to del.icio.us | Bookmark | Email
Magellan GPS ...
<http://www.magellangps.com/> - 1k - Friday, September 29, 2006
Source: Yahoo!

[Large Magellanic Cloud](#)
Add to Working List | Post to del.icio.us | Bookmark | Email
...The Large Magellanic Cloud and...
http://en.wikipedia.org/wiki/Large_Magellanic_Cloud - Sunday, October 08, 2006
Source: Wikipedia

[Magellan's Travel Supplies](#)
Add to Working List | Post to del.icio.us | Bookmark | Email
Magellan's Travel Supplies, America's leading source of travel supplies, offering over 500 products

Grokker in EBSCO

EBSCO Research Host Databases Basic Search Advanced Search Visual Search Choose Databases

[New Search](#) | [Folder](#) | [Preferences](#) | [Help](#) | [Exit](#) Beta Site Location

Sign In to My EBSCOhost

Find: Search Clear

in ?

Show Filters Zoom Back Top Level New to Visual Search? Take our tour.

More...

Behavioral Heal...

Corporate Profi...

Fidelity Magell...

General

Health Plan

Managed Mental...

Mental Health

Reviews Voyages

United States

United States

Is Visualization Useful?

- “Grokker presents web search results visually in automatically generated categories; it’s interesting and fun to play with, but it’s not useful.”
 - Peter Morville – Ambient Findability

What is Clustering?

- Clustering is a technology that **organizes** results in a way that makes it easy for patrons to find what they're looking for.
- Clustering achieves this by “clustering” (**grouping**) similar results together. It is an automated classification tool that organizes results as they are presented.
- Cluster types available include subject clusters, which are results-specific taxonomies, and facet based clusters such as author, journal titles, and date.

Focusing the Results via Clustering

[Refine Search](#) | [New Search](#)

[Export Records](#) | [Help](#)

[Topics](#) | [Date](#) | [Journals](#) | [Authors](#)

[Clustered Results](#)

[All Topics \(934\)](#)

- [Health \(137\)](#)
- [Venus \(75\)](#)
- [Straits Of Magellan \(64\)](#)
- [Fidelity, Fund \(60\)](#)
- [Ferdinand Magellan \(51\)](#)
- [Aerospace \(40\)](#)
- [GPS \(34\)](#)
- [Magellanic Cloud \(31\)](#)
- [Board \(27\)](#)
- [Magellan Midstream \(26\)](#)

[More](#)

[Sort Results by:](#) [Date](#) | [Title](#) | [Author](#) | [Source](#)

Results 1 - 25 of 1045666 for "title contains magellan" ([Show summary](#))

[1](#) - [2](#) - [3](#) - [4](#) - [5](#) - [6](#) - [7](#) - [8](#) - [9](#) - [10](#) >

- 1. Fidelity Magellan Fund**
Amy Buttell Crane.
Better Investing; Madison Heights (0006-016X)
Oct 2006. Vol.56, Iss.2; p.56-58
Source: [ABI/INFORM Dateline](#)
[Show Abstract](#) | [4 Duplicate Records](#)
[ARTICLE LINKER](#)
- 2. [Laparoscopic treatment of para-esophageal hernias.]**
Collet D, Wagner T, Sa Cunha A, Rault A, Masson B..
Ann Chir.
2006 Oct. Vol.131, Iss.8; p.437-441
Source: [PubMed](#)
[ARTICLE LINKER](#)
- 3. Measurement of cardiac ventricular volumes using multidetector row computed tomography: comparison of two- and three-dimensional methods.**
Montaudon M, Laffon E, Berger P, Corneloup O, Latrabe V, Laurent F..
Eur Radiol.
2006 Oct. Vol.16, Iss.10; p.2341-2349
Source: [PubMed](#)
[ARTICLE LINKER](#)
- 4. Stock Fund Trend Report: Fidelity Magellan**
Anonymous.
Better Investing; Madison Heights (0006-016X)
Oct 2006. Vol.56, Iss.2; p.59
Source: [ABI/INFORM Dateline](#)
[4 Duplicate Records](#)
[ARTICLE LINKER](#)
- 5. 10-K: MAGELLAN PETROLEUM CORP /DE/.**
EDGAR Online-Glimpse
28 Sep 2006. p.NA
Source: [InfoTrac OneFile](#)
[1 Duplicate Records](#)

Topic View – “Magellan”



[LIBRARY HOME](#) | [HOURS](#) | [A TO Z LIST](#) | [SITE MAP](#) | [CONTACT US](#)

[Refine Search](#) | [New Search](#)[Export Records](#) | [Help](#)

Topics | Date | Journals | Authors

Clustered Results

All Topics (934)

- Health (137)
- Venus (75)
 - Aerobraking, Orbit (14)
 - SAR (9)
 - Field, Gravity Mapping (7)
 - Initial analysis (6)
 - Simulation, Calculated (5)
 - Magellan Mission to Venus (4)
 - Plate tectonics (4)
 - Upper atmosphere (4)
 - Face Of Venus (3)
 - Motions, Topography (3)
 - Observations Of Venus (3)
 - Portrait, Magellan Paints (3)
 - Space science (3)
 - Due To End Its Sojourn Around Venus (2)
 - Planetary scientists (2)
 - Radio Occultation Studies Of Venus Atmosphere (2)
 - Magellan Team Fights To Extend Mission (1)
 - Radar Performance And Data Products (1)
 - Radar System Data (1)
 - Other (11)
 - Straits Of Magellan (64)
 - Fidelity, Fund (60)
 - Ferdinand Magellan (51)
 - Aerospace (40)
 - GPS (34)
 - Magellanic Cloud (31)
 - Board (27)
 - Magellan Midstream (26)

[More](#)

Sort Results by: Date | Title | Author | Source

Results 1 - 14 of 1045666 for "title contains magellan" ([Show summary](#))

1 [Get More Results >](#)

Results in "Aerobraking, Orbit" Cluster ([Clear filters](#))

1. Simulated rarefied aerodynamics of the Magellan spacecraft during aerobraking
Haas, Brian L.; Schmitt, Durwin A.
Journal of Spacecraft and Rockets (0022-4650)
November/December 1994. Vol.31; p.980-5
Source: [Applied Science & Technology Full Text](#)
[Show Abstract](#)

2. Air brakes: winner: JPL's aerobraking maneuvers for the Magellan Venus Orbiter; innovator: Daniel Lyons
Discover (0274-7529)
October 1994. Vol.15; p.54-5+
Source: [General Science Full Text](#)
[Show Abstract](#)

3. Magellan completes aerobraking
Astronomy (0091-6358)
March 1994. Vol.22; p.20
Source: [General Science Full Text](#)
[Show Abstract](#)

4. Money for Magellan
New York Times (Late New York Edition) (0362-4331)
March 1 1994. p.C13
Source: [General Science Full Text](#)
[Show Abstract](#)

5. Magellan: aerobraking at Venus
Curtis, Henry H..
Aerospace America (0740-722X)
January 1994. Vol.32; p.32-6+
Source: [Applied Science & Technology Full Text](#)
[Show Abstract](#)

SerialsSolutions®

E-Resource Access and Management Services

Topic View – “Magellan”



LIBRARY HOME | HOURS | A TO Z LIST | SITE MAP | CONTACT US

Refine Search | New Search

Export Records | Help

Topics | Date | Journals | Authors

Clustered Results

- All Topics (934)
- Health (137)
- Venus (75)
- Straits Of Magellan (54)
- Fidelity, Fund (60)
- Ferdinand Magellan (51)
 - First Voyage Around The World (8)
 - Cano (4)
 - Portuguese navigator (4)
 - Chronology, SLJ (3)
 - Ferdinand Magellan and the Quest to Circle the Globe (3)
 - Magellan's route (3)
 - Baptista Agnese (2)
 - Bridge (2)
 - Ferdinand Magellan's Overconfidence In Technology Prevented (2)
 - Other (23)
- Aerospace (40)
- GPS (34)
- Magellanic Cloud (31)
- Board (27)
- Magellan Midstream (26)

More

Sort Results by: Date | Title | Author | Source

Results 1 - 8 of 1045666 for "title contains magellan" (Show summary)

1

Get More Results >

Results in "First Voyage Around The World" Cluster (Clear filters)

- Ferdinand Magellan: The First Voyage around the World/Samuel de Champlain: Explorer of the Great Lakes Region and Founder of Quebec (Book).**
Charnizon, Marlene; Grabarek, Daryl; Larkins, Jeanne; Toth, Luann; England, Jennifer; Jones, Trevelyn E..
School Library Journal (0362-8930)
9/1/2003. Vol.49, Iss.9; p.227
Source: Professional Development Collection
[Show Abstract](#)

- Ferdinand Magellan : the first voyage around the world**
Burnett, Betty..
2003.
Source: Innovative Catalog (Z39.50)
[Show Abstract](#)
- Magellan and the First Voyage Around the World (Book).**
Beddoe, Patricia.
Book Report (0731-4388)
3/1/2002. Vol.20, Iss.5; p.57
Source: Computer Source
[Show Abstract](#)

- Magellan : Ferdinand Magellan and the first trip around the world**
Burgan, Michael..
2002.
Source: Innovative Catalog (Z39.50)
- Magellan and the first voyage around the world**
Levinson, Nancy Smiler..
2001.
Source: Innovative Catalog (Z39.50)
- Magellan : a voyage around the world**
Macdonald, Fiona.; Bergin, Mark.; Macdonald, Fiona..
1999.

4 Tabs – Topics, Date, Journal, Author

Refine Search | New Search

Topics | Date | Journals | Authors

Clustered Results

All Topics (934)

- Health (137)
- Venus (75)
- Straits Of Magellan (64)
- Fidelity, Fund (60)
- Ferdinand Magellan (51)
- Aerospace (40)
- GPS (34)
- Magellanic Cloud (31)
- Board (27)
- Magellan Midstream (26)
- Columbus, Rise of the Spanish Empire (21)
- Launch (18)
- Magellan Petroleum (16)
- Magellan Voyage (14)
- Over the Edge of the World (13)
- Purchase Magellan (13)
- Telescope (12)
- Children (11)
- Magellan RoadMate (10)
- Navigator to Magellan (10)
- Officials, Earnings (10)
 - History of the North Pacific from Magellan to MacArthur (9)
 - Largest Employee Assistance Program (7)
- Acquired Thales (6)
- Chicago, Dybek (6)
 - House (6)
- Magellan lead (6)
 - Stuart Dybek (6)

Topics are auto-generated by the Clustering engine.

Refine Search | New Search

Topics | Date | Journals | Authors

Clustered Results

All Dates (934)

- P2005 (1)
- P2003 (2)
- P2001 (2)
- P1998 (1)
- C (2)
- 2000 and later (466)
 - 2006 (228)
 - January (23)
 - February (25)
 - March (16)
 - April (12)
 - May (16)
 - June (8)
 - July (28)
 - August (39)
 - September (55)
 - October (4)
 - Other (2)
 - 2005 (102)
 - January (9)
 - March (5)
 - April (6)
 - May (8)
 - June (4)
 - July (5)
 - October (16)
 - November (24)
 - December (14)
 - Dec 19-Dec 26, 2005 (1)
 - August (4)
 - September (1)
 - Other (1)
 - 2004 (72)
 - 2003 (34)
 - 2002 (13)
 - 2001 (10)
 - 2000 (8)
 - 1990-99 (167)
 - 1989 (11)
 - 1986 (2)
 - 1985 (4)

More

Date, Journal, Author Tabs are “aggregations” of the information in the citation metadata.

Refine Search | New Search

Topics | Date | Journals | Authors

Clustered Results

All Journals (934)

- Mental Health Weekly (33)
- Monthly Notices of the Royal Astronomical Society (18)
- New York Times (1857-Current file); New York, N.Y. (14)
- Science (13)
- Wall Street Journal; Eastern edition; New York, N.Y. (13)
- M2 Presswire; Coventry (11)
- Modern Healthcare (11)
- Obesity, Fitness & Wellness Week; Atlanta (10)
- Science New Series (10)
- Business Wire (9)
- Booklist (8)
- Business Wire; New York (8)
- Data from: University of California San Diego (8)
- Modern Healthcare; Chicago (8)
- Aviation Week & Space Technology (7)
- Aviation Week & Space Technology; New York (7)
- Library Journal (7)
- School Library Journal (7)
- TFN/Nelson's Domestic Earnings Reports (7)
- Wireless News (7)
- Wireless News; Coventry (7)
- American Historical Review (6)
- M2PressWIRE (6)

Substance Abuse Report; New York (5)

Refine Search | New Search

Topics | Date | Journals | Authors

Clustered Results

All Authors (934)

- Anonymous (23)
- Dornheim, Michael A (7)
- Kerr, Richard A (6)
- Autry, Norma (5)
- Smylie, Bob (5)
- Thomas, Hugh (5)
- Bergreen, Laurence (4)
- BREWSTER, DEBORAH (4)
- McDougall, Walter A (4)
- Bayer, Barry D (3)
- Carls, Alice-Catherine (3)
- Gilroy, Amy (3)
- Hechinger, John (3)
- Leung, K (3)
- Martin, Laura C (3)
- Quezzaire, Pilar (3)
- Anderson, C (2)
- Andrews, Robert J (2)
- Arntz, Wolf (2)
- Arvidson, R E (2)
- Astorga, Espana M S (2)
- Branley, Franklyn Mansfield (2)
- Brubaker, Bill (2)
- Charnizon, Marlene (2)
- Chen, M (2)
- Davis, Kirby Lee (2)
- Dowler, Farida S (2)
- Driscoll, Brendan (2)
- Dybek, Stuart (2)
- Ford, P G (2)

Japsen, Bruce (2)
Kerr, R A (2)
Lankiewicz, Donald (2)

Dynamic Clustering

Refine Search | New Search Export Records | Help

Topics | Date | Journals | Authors

Clustered Results

All Topics (214)

- Magellan Health Services (51)
- Fidelity, Fund (37)
- Buy (30)
- GPS (23)
- Straits Of Magellan (23)
- Magellan Aerospace (19)
- Laboratory, University (10)
- Magellan Launches (7)
- Venus (7)
- Magellan lead (6)
- More

Sort Results by: Date | Title | Author | Source

Results 1 - 25 of 1045666 for "title contains magellan" (Show summary)

1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9

Results from ProQuest (Clear filters)

- Fidelity Magellan Fund**
Amy Buttell Crane.
Better Investing; Madison Heights (0006-016X)
Oct 2006. Vol.56, Iss.2; p.56-58
Source: ABI/INFORM Dateline
Show Abstract | 4 Duplicate Records

ARTICLE
LINKER

2. Stock Fund Trend Report: Fidelity Magellan

Results from ProQuest, Produces a unique set of clusters

Refine Search | New Search Export Records | Help

Topics | Date | Journals | Authors

Clustered Results

All Topics (249)

- Health (29)
- Largest (17)
- Magellan Midstream (15)
- Petroleum (12)
- Aerospace (9)
- Fund (8)
 - Navigation (8)
 - Columbus to Magellan (5)
- EXplorist (5)
- Sailed (5)
- More

Sort Results by: Date | Title | Author | Source

Results 1 - 25 of 1045666 for "title contains magellan" (Show summary)

1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

Results from Thomson Gale (Clear filters)

- 10-K: MAGELLAN PETROLEUM CORP /DE/.**
EDGAR Online-Glimpse
28 Sep 2006. p.NA
Source: InfoTrac OneFile
1 Duplicate Records
- ATMEL AND MAGELLAN INTRODUCE NEW GPS CHIPSET GENERATION.**
AsiaPulse News
28 Sep 2006. p.NA
Source: InfoTrac OneFile
1 Duplicate Records

Results from Gale, Produces a unique set of clusters

Clustering, Visualization, Thought Clouds

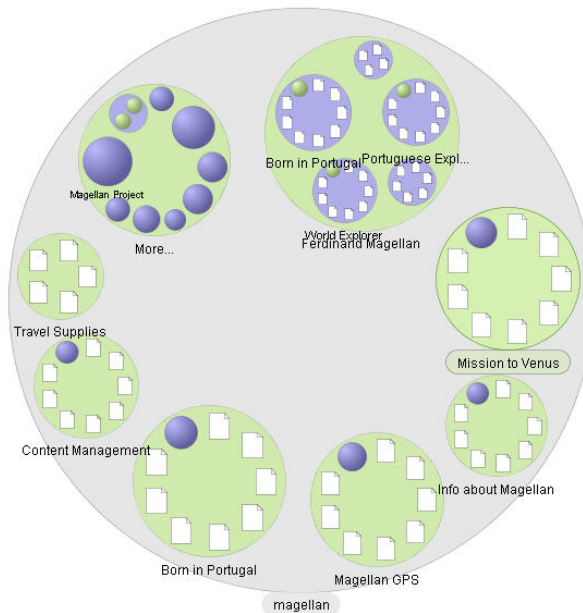
Topics | Date | Journals | Authors

Clustered Results

All Topics (932)

- Health (122)
 - Sales (16)
- Education, NAMI (9)
 - Iowa, Recovery (9)
- Benefits, Managed (8)
- Quarter (8)
 - Acquisition Of Icore Healthcare (7)
 - Mental health (7)
 - Magellan CEO (6)
- WellPoint Inc (6)
 - Children, Program For Managing Family Court Parenting (4)
 - Other (49)
- Review, Book (79)
- Venus (74)
 - Aerobraking, Orbit (13)
- Atmosphere Of Venus (12)
 - SAR (9)
 - Field, Gravity Mapping (7)
 - Science, Planetary scientists (7)
 - Synthetic Aperture (5)
 - Initial analysis (4)
 - Magellan data (4)
 - Plate tectonics (4)
 - Other (27)
- Strait Of Magellan (69)
 - Recording, Sound (7)
 - Review (7)
 - Voyages (7)
 - Steamer (6)
 - Ship, Perished (5)
 - Waters, Skyring (5)
 - Other (36)
- Fidelity, Fund (61)
- Ferdinand Magellan (49)
- Aerospace (41)
- GPS (33)
- Magellan Midstream (31)
- Magellanic Cloud (26)

[More](#)



Clusty Cloud for: magellan

[Art](#) [Consulting firm](#) [Explorer](#) [EyeSpyFX](#) [Ferdinand](#)

[Magellan](#) **[GPS](#)** [Imaging](#) [Info about Magellan](#)

[Magellan Aerospace](#) [Magellan Midstream](#) [Market](#)

[Mission](#) [Multilingual E-Mail](#) [Network](#) [Progressive Rock](#)

[Realestate](#) [Search Engine](#) [Solutions](#) [Travel](#) [Voyage](#)



Key Benefits of Results Clustering

Faster Research, Improved Discovery

- Find answers faster
- Eliminate information overload
- Increase use of Library collection

Find Answers Faster

Spend less time searching – more time for analysis and interpretation

- Turns a long list of citations into browseable Subject clusters
- More effective than “relevancy” - the “right” answer is often found in many citations
- Journal, Date, and Author facets help patrons drill down to specific items – as well as discover new ones

Eliminate Information Overload

Brings clarity to an avalanche of results

- Results can be viewed as small, coherent groups
- Clusters/groups should be concise, accurate, and distinctive
- Knowledge discovery and browsing are faster and easier than ever before possible

Increase Use of Library Collection

Ease of Use is Critical

- Less training required the better – not a separate action
- Text based links embrace existing Web usability patterns
- Facets enable patrons to explore results from a variety of vantage points with one click
- Hierarchical clusters/groups indicate relevance of terms without relying on “magic bullet” relevance ranking

1st Impressions

- **"Excellent, smart and, pretty -- very smart and very pretty, a perfect couple with Central Search. This is the best implementation of Vivisimo and will make users appreciate libraries again."**
 - *Peter Jacso – University of Hawaii*
- **I think this will increase the usefulness of Central Search manyfold for our users.**
 - *Kimberly Kane – Ford Foundation*

Check Them Out on Your Own!

- **Central Search Basic Demo**
 - <http://demo.cs.serialssolutions.com/demo>
 - username: sersol password: search
- **Kartoo**
 - www.kartoo.com
- **Grokker**
 - www.grokker.com

The Future of Search?



Thank you for your time!

JR Jenkins, MLIS

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